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## News Release

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# Lake County, Ohio, flood exceeded 500-year level

According to preliminary field studies and analyses by the U.S. Geological Survey (USGS), the peak streamflow of the Grand River near Painesville, Lake County, on July 28 exceeded the 500-year flood statistic. A 500-year flood—the maximum for which the USGS computes statistics—is the peak streamflow that has only a 1 in 500 chance of being equalled or exceeded in any given year.

“On July 28, a USGS crew measured the streamflow in the Grand River at State Route 84 bridge in Painesville, as the water level was going down,” said Greg Koltun, Surface-water Specialist for the USGS Ohio Water Science Center in Columbus. “At that time, the streamflow was 19,300 cubic feet per second. However, prior to the measurement, the river crested nearly 4 feet higher; so it’s clear that this was truly an extreme flood. Our current best estimate is that the peak flow may have been around 30,000 cubic feet per second.” The maximum streamflow previously observed at the Painesville gage, which has been in operation since 1975, was 18,700 cubic feet per second.

Koltun said that the severity of the Grand River flooding coincides with National Weather Service estimates on the amount of rainfall near Painesville in the preceding 48 hours—more than 10 inches—which exceeds the 1,000-year recurrence interval for 48-hour rainfall intensity.

The USGS flagged high water marks in and near Painesville and Fairport Harbor to establish peak water levels throughout the most heavily affected areas. A decision on whether the USGS will do a more detailed study of the flood is pending.

The flooding in Lake County resulted in one death, evacuation of hundreds of people, destruction of scores of homes, and millions of dollars in property damage. President Bush issued a federal disaster designation for Lake County, as well as for adjacent Geauga and Ashtabula Counties.

The USGS serves the Nation by providing reliable scientific information to describe and understand the Earth; minimize loss of life and property from natural disasters; manage water, biological, energy, and mineral resources; and enhance and protect our quality of life. A recent USGS fact sheet, “Flood Hazards—A National Threat,” can be found at <http://pubs.usgs.gov/fs/2006/3026/>.

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